

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSPTANXR1625

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * Welcome to STN International * * * * *

NEWS 1 Web Page for STN Seminar Schedule - N. America
NEWS 2 JAN 02 STN pricing information for 2008 now available
NEWS 3 JAN 16 CAS patent coverage enhanced to include exemplified
prophetic substances
NEWS 4 JAN 28 USPATFULL, USPAT2, and USPATOLD enhanced with new
custom IPC display formats
NEWS 5 JAN 28 MARPAT searching enhanced
NEWS 6 JAN 28 USGENE now provides USPTO sequence data within 3 days
of publication
NEWS 7 JAN 28 TOXCENTER enhanced with reloaded MEDLINE segment
NEWS 8 JAN 28 MEDLINE and LMEDLINE reloaded with enhancements
NEWS 9 FEB 08 STN Express, Version 8.3, now available
NEWS 10 FEB 20 PCI now available as a replacement to DPCI
NEWS 11 FEB 25 IFIREF reloaded with enhancements
NEWS 12 FEB 25 IMSPRODUCT reloaded with enhancements
NEWS 13 FEB 29 WPINDEX/WPIDS/WPIX enhanced with ECLA and current
U.S. National Patent Classification
NEWS 14 MAR 31 IFICDB, IFIPAT, and IFIUIDB enhanced with new custom
IPC display formats
NEWS 15 MAR 31 CAS REGISTRY enhanced with additional experimental
spectra
NEWS 16 MAR 31 CA/CAPLUS and CASREACT patent number format for U.S.
applications updated
NEWS 17 MAR 31 LPCI now available as a replacement to LDPCI
NEWS 18 MAR 31 EMBASE, EMBAL, and LEMBASE reloaded with enhancements
NEWS 19 APR 04 STN AnaVist, Version 1, to be discontinued

NEWS EXPRESS FEBRUARY 08 CURRENT WINDOWS VERSION IS V8.3,
AND CURRENT DISCOVER FILE IS DATED 20 FEBRUARY 2008

NEWS HOURS STN Operating Hours Plus Help Desk Availability
NEWS LOGIN Welcome Banner and News Items
NEWS IPC8 For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that
specific topic.

All use of STN is subject to the provisions of the STN Customer
agreement. Please note that this agreement limits use to scientific
research. Use for software development or design or implementation
of commercial gateways or other similar uses is prohibited and may
result in loss of user privileges and other penalties.

* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 13:00:55 ON 04 APR 2008

=> file reg
COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
0.21	0.21

FULL ESTIMATED COST

FILE 'REGISTRY' ENTERED AT 13:01:05 ON 04 APR 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2008 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 3 APR 2008 HIGHEST RN 1012038-13-9
DICTIONARY FILE UPDATES: 3 APR 2008 HIGHEST RN 1012038-13-9

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 9, 2008.

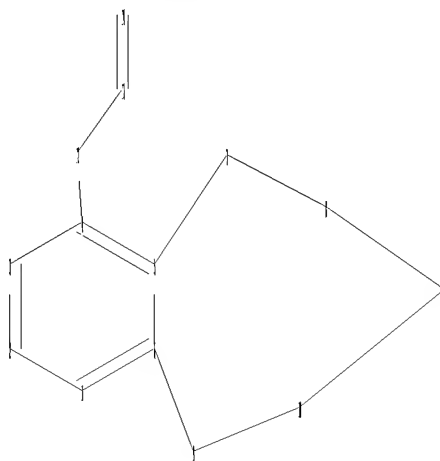
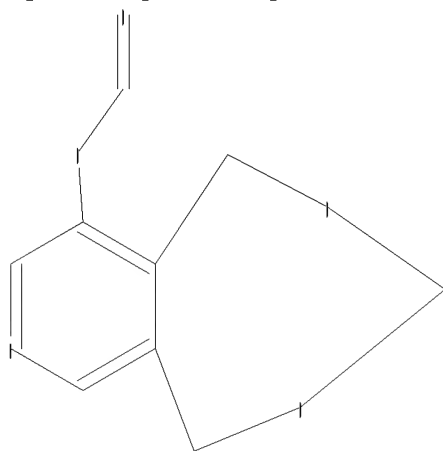
Please note that search-term pricing does apply when
conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=>

Uploading C:\Program Files\Stnexp\Queries\10579836.str



chain nodes :

12 13 14

ring nodes :

1 2 3 4 5 6 7 8 9 10 11

chain bonds :

4-12 12-13 13-14

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-9 7-8 8-11 9-10 10-11

exact/norm bonds :

4-12 12-13 13-14

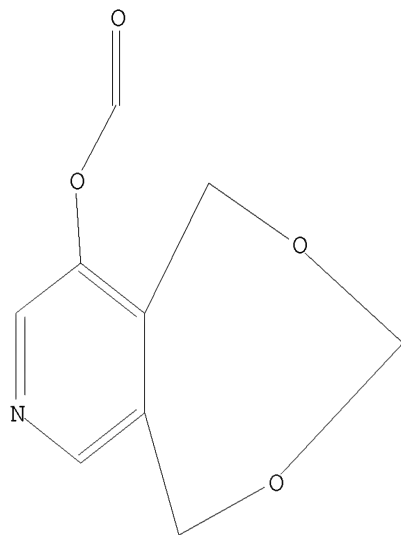
exact bonds :

5-7 6-9 7-8 8-11 9-10 10-11
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6
isolated ring systems :
containing 1 :

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:CLASS 13:CLASS 14:CLASS

L1 STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l1
SAMPLE SEARCH INITIATED 13:01:23 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 7 TO ITERATE

100.0% PROCESSED 7 ITERATIONS 4 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 7 TO 298
PROJECTED ANSWERS: 4 TO 200

L2 4 SEA SSS SAM L1

=> s l1 full
FULL SEARCH INITIATED 13:01:27 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 89 TO ITERATE

100.0% PROCESSED 89 ITERATIONS
SEARCH TIME: 00.00.01

27 ANSWERS

L3 27 SEA SSS FUL L1

=> file caplus
COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
178.36	178.57

FULL ESTIMATED COST

FILE 'CAPLUS' ENTERED AT 13:01:31 ON 04 APR 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 4 Apr 2008 VOL 148 ISS 15
FILE LAST UPDATED: 3 Apr 2008 (20080403/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

<http://www.cas.org/infopolicy.html>

=> s 13 full
L4 20 L3

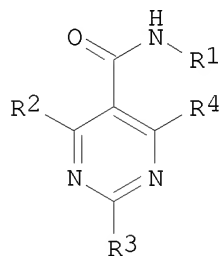
=> s 13/prep full
 20 L3
 4552880 PREP/RL
L5 17 L3/PREP
 (L3 (L) PREP/RL)

=> d ibib abs hitstr tot

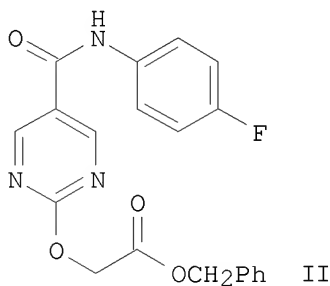
L5 ANSWER 1 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:165553 CAPLUS
DOCUMENT NUMBER: 146:206335
TITLE: Preparation of pyrimidinecarboxamides as CXCR2
receptor antagonists for the treatment of inflammation
INVENTOR(S): Baughman, Theodore A.; Boyce, Jim P.; Darwish, Ihab
S.; Howbert, J. Jeffry; Ihle, Nathan C.; Jackson,
Randy W.; Jeffrey, Scott C.; Maeda, Dean; Yager, Kraig
M.
PATENT ASSIGNEE(S): Ucb SA, UK
SOURCE: U.S., 32pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 7176310	B1	20070213	US 2003-407870	20030404
PRIORITY APPLN. INFO.:			US 2002-371265P	P 20020409
OTHER SOURCE(S):	MARPAT	146:206335		
GI				



I



II

AB Title compds. I [wherein R1 = aralkyl or aryl; R2 = H or NH₂; R3 = aryloxy, arylsulfinyl, amino, etc.; R4 = H, halo or alkyl, with limitations] and their stereoisomers, pharmaceutically acceptable salts or solvates thereof, which are useful as chemokine CXCR2 receptor antagonist and anti-inflammatory agents (no data), were prepared Thus, compound II was obtained in 30% yield by condensation of the corresponding 2-methylsulfinylpyrimidine (preparation given) with benzyl glycolate.

IT 923292-04-0P

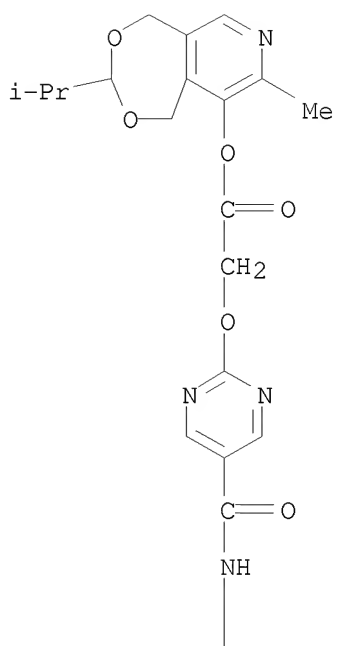
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of pyrimidinecarboxamide derivs. as CXCR2 receptor antagonists for treatment of inflammation)

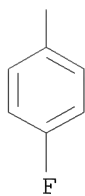
RN 923292-04-0 CAPLUS

CN Acetic acid, 2-[[5-[[[(4-fluorophenyl)amino]carbonyl]-2-pyrimidinyl]oxy]-, 1,5-dihydro-8-methyl-3-(1-methylethyl)[1,3]dioxepino[5,6-c]pyridin-9-yl ester (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



REFERENCE COUNT:

79

THERE ARE 79 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 2 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:472161 CAPLUS
DOCUMENT NUMBER: 143:7535
TITLE: Manufacture of vitamin B6 and related
9-acyloxy-1,5-dihydro-8-methylpyrido[3,4-
e][1,3]dioxepins
INVENTOR(S): Fischesser, Jocelyn; Fritsch, Helmut; Gum, Andrew
George; Karge, Reinhard; Keuper, Ralf
PATENT ASSIGNEE(S): DSM IP Assets B. V., Neth.
SOURCE: PCT Int. Appl., 23 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005049618	A1	20050602	WO 2004-EP12655	20041109
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1685133	A1	20060802	EP 2004-818764	20041109
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				
CN 1882592	A	20061220	CN 2004-80034214	20041109
JP 2007511558	T	20070510	JP 2006-540247	20041109
US 20070072254	A1	20070329	US 2006-579836	20060608
PRIORITY APPLN. INFO.:			DE 2003-10353999	A 20031119
			WO 2004-EP12655	W 20041109
OTHER SOURCE(S):			CASREACT 143:7535; MARPAT 143:7535	
GI				

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB A process for manufacturing a 3-un-, 3-mono- or 3,3-disubstituted 9-acyloxy-1,5-dihydro-8-methylpyrido[3,4-e][1,3]dioxepin I [R2, R3 = H, C1-4-alkyl C2-4-alkenyl; R4 = C1-4-alkyl, C1-4-haloalkyl, Ph-(C1-4-alkyl), Ph; CR2R3 = C4-6-cycloalkylidene] and optionally for manufacturing pyridoxine involves performing an addition reaction between a 4-methyl-5-alkoxy-oxazole II [R1 = C1-4-alkyl] and a 2-un-, 2-mono- or 2,2-disubstituted 4,7-dihydro-1,3-dioxepin III in the substantial absence of a solvent and a catalyst to give a product mixture consisting essentially of the appropriate Diels-Alder adduct IV in a major proportion and the appropriate 3-un-, 3-mono- or 3,3-disubstituted 1,5-dihydro-8-methylpyrido[3,4-e][1,3]dioxepin-9-ol V in a minor proportion, removal of a substantial proportion of the unreacted oxazole and dioxepin starting materials from the product mixture by distillation under reduced pressure, addition of a substantially anhydrous organic acid to said product mixture and rearrangement of the Diels-Alder adduct IV to further V in the presence of said

substantially anhydrous organic acid with removal of the generated alkanol by distillation under reduced pressure, and acylation of the resultingly enriched quantity of V with an added carboxylic acid anhydride, (R₄CO)₂O to produce the desired I, and optionally converting this so-manufactured acylation product I to pyridoxine by acid hydrolysis for achieving deprotection and deacylation. Pyridoxine [VI] is a well known form of vitamin B6 with well established utility.

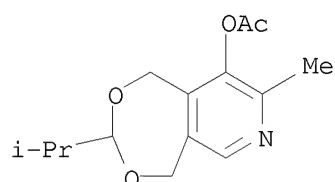
IT 92671-67-5P, 9-Acetoxy-1,5-Dihydro-3-isopropyl-8-methylpyrido[3,4-e][1,3]dioxepin

RL: SPN (Synthetic preparation); PREP (Preparation)

(manufacture of vitamin B6 and related 9-acyloxy-1,5-dihydro-8-methylpyrido[3,4-e][1,3]dioxepins)

RN 92671-67-5 CAPLUS

CN [1,3]Dioxepino[5,6-c]pyridin-9-ol, 1,5-dihydro-8-methyl-3-(1-methylethyl)-, acetate (ester) (9CI) (CA INDEX NAME)



REFERENCE COUNT:

4

THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 3 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:981764 CAPLUS

DOCUMENT NUMBER: 138:287060

TITLE: Crystal structure of seven-membered acetals with furan and pyridine planar fragments

AUTHOR(S): Fedorenko, V. Yu.; Lodochnikova, O. A.; Petukhov, A. S.; Kataeva, O. N.; Litvinov, I. A.; Shtyrilin, Yu. G.; Klimovitskii, E. N.

CORPORATE SOURCE: A.M. Butlerov Chemical Research Institute, Kazan State University, Kazan, 420008, Russia

SOURCE: Journal of Molecular Structure (2003), 644(1-3), 89-96
CODEN: JMOSB4; ISSN: 0022-2860

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

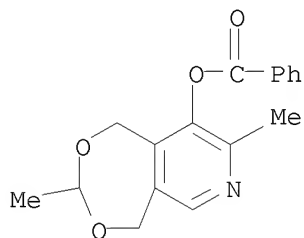
AB X-ray structure investigation of fused seven-membered acetals based on vitamin B6 and 3,4-bis(hydroxymethyl)furan have been performed. Mols. adopt chair conformations with equatorial position of substituents at acetal carbons; the geometry of acetal cycles resembles that of related seven-membered phthalylacetals. Stereochem. of the tetracyclic adduct of furan-containing acetal with maleic anhydride was also investigated. The product exhibits endo-exo configuration with appreciably distorted seven-membered chair-like conformation.

IT 451461-88-4P 505074-22-6P

RL: PRP (Properties); SPN (Synthetic preparation); PREP
(Preparation)
(preparation and crystallog. of)

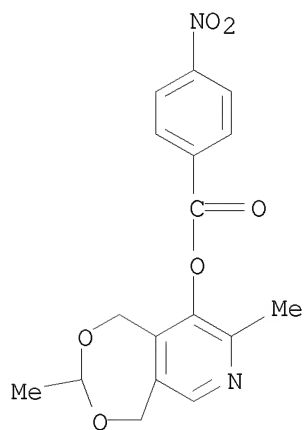
RN 451461-88-4 CAPLUS

CN [1,3]Dioxepino[5,6-c]pyridin-9-ol, 1,5-dihydro-3,8-dimethyl-, benzoate
(ester) (9CI) (CA INDEX NAME)



RN 505074-22-6 CAPLUS

CN [1,3]Dioxepino[5,6-c]pyridin-9-ol, 1,5-dihydro-3,8-dimethyl-,
4-nitrobenzoate (ester) (9CI) (CA INDEX NAME)



REFERENCE COUNT:

38

THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 4 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:103940 CAPLUS

DOCUMENT NUMBER: 136:334219

TITLE: Studies on the synthesis, relaxivity and liver-targeting of DTPA-pyridoxol ester gadolinium complexes

AUTHOR(S): Ding, Xiong-jun; Zhuo, Ren-xi; Fu, Gong-cheng

CORPORATE SOURCE: Key Lab. of Biomedical Polymer Materials, Ministry of Education; Department of Chemistry, Wuhan University, Wuhan, 43--72, Peop. Rep. China

SOURCE: Gaodeng Xuexiao Huaxue Xuebao (2002), 23(1), 49-52
CODEN: KTHPDM; ISSN: 0251-0790

PUBLISHER: Gaodeng Jiaoyu Chubanshe

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

OTHER SOURCE(S): CASREACT 136:334219

AB Several new DTPA-pyridoxol ester ligands ROOCCH₂N(CH₂COOH)CH₂CH₂N(CH₂COOH)CH₂CH₂N(CH₂COOH)CH₂COOR were synthesized by reacting diethylenetriaminepentaacetic anhydride (DTPAA) with pyridoxol (R) derivs. Their gadolinium complexes were also prepared. Their T₁ relaxivities in water were measured. The ⁹⁹Tc-labeled combination radioactivity experiment with liver cells and kidney cells of mice showed that two ligands possessed an excellent liver-targeting property. The results of animal MR imaging experiment further confirmed that the signals in liver were obviously strengthened after injection of their complexes.

IT 412939-75-4P

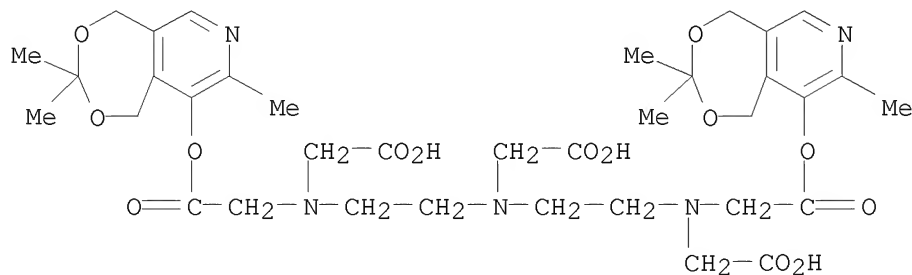
RL: RCT (Reactant); SPN (Synthetic preparation); PREP

(Preparation); RACT (Reactant or reagent)

(reactant; preparation, T₁ relaxivity, and liver-targeting properties of gadolinium DTPA-pyridoxol ester complexes in ⁹⁹Tc-labeled combination radioactivity expts.)

RN 412939-75-4 CAPLUS

CN Glycine, N,N-bis[2-[(carboxymethyl)[2-[(1,5-dihydro-3,3,8-trimethyl[1,3]dioxepino[5,6-c]pyridin-9-yl)oxy]-2-oxoethyl]amino]ethyl]-(9CI) (CA INDEX NAME)



L5 ANSWER 5 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:106715 CAPLUS

DOCUMENT NUMBER: 126:186065

TITLE: Chemistry of 1,3-dioxepins. XI. Bis(4,7-dihydro-1,3-dioxepin) approach to pyridoxine intermediates
1,5-dihydro-8-methyl-3H-[1,3]dioxepino[5,6-c]pyridin-9-ols

AUTHOR(S): Dumic, Miljenko; Vinkovic, Mladen; Jadrijevic-Mladar Takac, Milena; Butula, Ivan

CORPORATE SOURCE: PLIVA-Research Institute, Zagreb, HR-10000, Croatia

SOURCE: Croatica Chemica Acta (1996), 69(4), 1561-1576

CODEN: CCACAA; ISSN: 0011-1643

PUBLISHER: Croatian Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

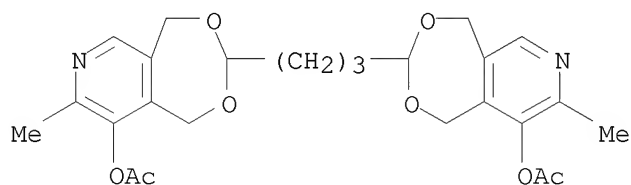
AB The novel pyridoxine intermediates, bis-dioxepino[5,6-c]pyridin-9-ols have been synthesized starting from bis-(4,7-dihydro-1,3-dioxepins). Their constitution and configuration has been confirmed by single-crystal X-ray diffractions.

IT 187467-71-6P 187467-73-8P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

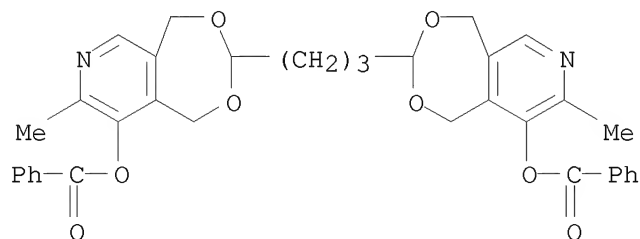
RN 187467-71-6 CAPLUS

CN [1,3]Dioxepino[5,6-c]pyridin-9-ol, 3,3'-(1,3-propanediyl)bis[1,5-dihydro-8-methyl-, diacetate (ester) (9CI) (CA INDEX NAME)



RN 187467-73-8 CAPLUS

CN [1,3]Dioxepino[5,6-c]pyridin-9-ol, 3,3'-(1,3-propanediyl)bis[1,5-dihydro-8-methyl-, dibenzoate (ester) (9CI) (CA INDEX NAME)



REFERENCE COUNT:

24

THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1982:455657 CAPLUS

DOCUMENT NUMBER: 97:55657

ORIGINAL REFERENCE NO.: 97:9369a,9372a

TITLE: Heterogeneous condensation of lauroyl chloride with

some pyridine derivatives in the presence of alkali

AUTHOR(S): Koruncev, Dimitar; Coric, Miljenko; Rota, Hrvatinaka;

Miric, Ljubomir

CORPORATE SOURCE: Zagreb, Yugoslavia

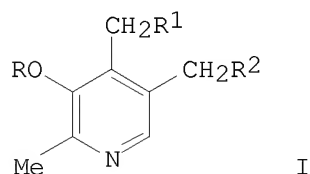
SOURCE: Farmaceutski Glasnik (1982), 38(3), 73-5

CODEN: FAGLAI; ISSN: 0014-8202

DOCUMENT TYPE: Journal

LANGUAGE: Serbo-Croatian

GI



AB Acylation of pyridoxine derivs. I ($R = H$; $R_1 = R_2 = OAc, Br, NHC_6H_4CF_3-3$; $R_1 = OMe, R_2 = OAc$; $R_1R_2 = O_2CHCHMe_2, O_2CMe_2$) with $Me(CH_2)_{10}COCl$ in C_6H_6 , PhMe or petroleum ether containing 1 equivalent solid or aqueous alkali at room temperature

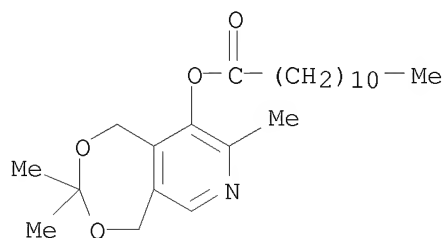
gave .apprx.80% I [$R = Me(CH_2)_{10}CO$; same R_1, R_2].

IT 82470-52-8P 82483-56-5P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

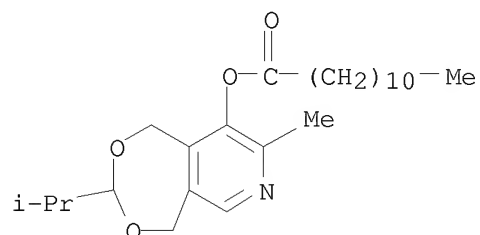
RN 82470-52-8 CAPLUS

CN Dodecanoic acid, 1,5-dihydro-3,3,8-trimethyl[1,3]dioxepino[5,6-c]pyridin-9-yl ester (CA INDEX NAME)



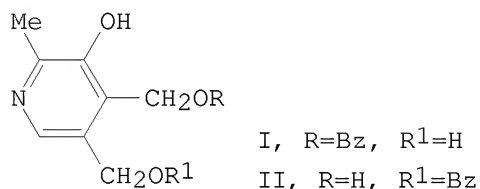
RN 82483-56-5 CAPLUS

CN Dodecanoic acid, 1,5-dihydro-8-methyl-3-(1-methylethyl)[1,3]dioxepino[5,6-c]pyridin-9-yl ester (CA INDEX NAME)



L5 ANSWER 7 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1982:79353 CAPLUS
DOCUMENT NUMBER: 96:79353
ORIGINAL REFERENCE NO.: 96:12893a,12896a
TITLE: Stability, bactericidal activity, vitamin B6 activity
and gastrointestinal absorption of benzoic acid esters
of pyridoxine
AUTHOR(S): Mizuno, Nobuyasu; Fukumoto-Hato, Miyako;
Matsumoto-Yoshino, Miyuki; Morita, Emiko
CORPORATE SOURCE: Fac. Pharm. Sci., Mukogawa Women's Univ., Hyogo, 663,
Japan
SOURCE: Journal of Nutritional Science and Vitaminology
(1981), 27(3), 165-75
CODEN: JNSVA5; ISSN: 0301-4800
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

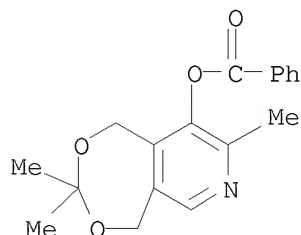


AB α 4-O-Benzoyl pyridoxine (PN-4'MB)(I) was synthesized; PN-4'MB and α 5-O-benzoyl pyridoxine (PN-5'MB)(II) obeyed apparent first-order kinetics when hydrolyzed in 10% aqueous acetone solution at pH 1-4. At pH 1-7, PN-4'MB was hydrolyzed 10 times faster than PN-5'MB. At pH 7-12, an interconversion between the 2 derivs. was observed. Both were bactericidal against *Escherichia coli* and *Bacillus subtilis* and prevented severe convulsions induced in mice by 4'-methoxypyridoxine, a potent antagonist of vitamin B6. PN-4'MB was hydrolyzed by rat liver homogenates more easily than PN-5'MB. The metabolite of both in man was identified as 4'-pyridoxic acid, a principal metabolite of pyridoxine, by high-performance liquid chromatog. The amount of urinary excretion of 4'-pyridoxic acid in 10 h after oral administration of PN-4'MB or PN-5'MB was as large as that after pyridoxine. Thus, I and II, when used as an ointment or cosmetic preservative, appear to be hydrolyzed by skin enzymes and exhibit bactericidal and vitamin B6 activities.

IT 14210-76-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation); RACT (Reactant or reagent)
(preparation and deketalization of)

RN 14210-76-5 CAPLUS

CN [1,3]Dioxepino[5,6-c]pyridin-9-ol, 1,5-dihydro-3,3,8-trimethyl-, benzoate
(ester) (8CI, 9CI) (CA INDEX NAME)



L5 ANSWER 8 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1976:89958 CAPLUS

DOCUMENT NUMBER: 84:89958

ORIGINAL REFERENCE NO.: 84:14673a,14676a

TITLE: A novel acetyl migration reaction from oxygen to oxygen in a pyridoxine derivative promoted by metal ions

AUTHOR(S): Iwata, Masaaki; Kuzuhara, Hiroyoshi; Emoto, Sakae

CORPORATE SOURCE: Inst. Phys. Chem. Res., Wako, Japan

SOURCE: Chemistry Letters (1976), (1), 17-18

CODEN: CMLTAG; ISSN: 0366-7022

DOCUMENT TYPE: Journal

LANGUAGE: English

GI For diagram(s), see printed CA Issue.

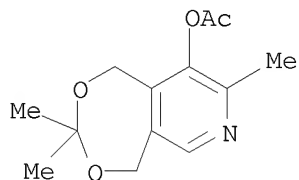
AB 2-Acetoxy-3-O-acetyl-4,5-O-isopropylidenepyridoxine (I, R = AcO) was converted to 2'-acetoxy-4'-acetylpyridoxine (III) in Me₂CO in the presence of metal ions such as Zn, Cu, Fe, and Al. Of these catalysts Fe was the most effective. However, I (R = H) and its N-oxide did not give migration products with these catalysts.

IT 14213-49-1P 58620-81-8P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

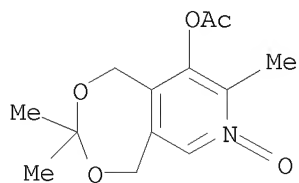
RN 14213-49-1 CAPLUS

CN [1,3]Dioxepino[5,6-c]pyridin-9-ol, 1,5-dihydro-3,3,8-trimethyl-, acetate (ester) (8CI, 9CI) (CA INDEX NAME)



RN 58620-81-8 CAPLUS

CN [1,3]Dioxepino[5,6-c]pyridin-9-ol, 1,5-dihydro-3,3,8-trimethyl-, acetate (ester), 7-oxide (9CI) (CA INDEX NAME)



L5 ANSWER 9 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1976:22040 CAPLUS

DOCUMENT NUMBER: 84:22040

ORIGINAL REFERENCE NO.: 84:3615a,3618a

TITLE: Pyridoxine derivatives. XIII. Hydrolysis of pyridoxine monooctanoates

AUTHOR(S): Mizuno, Nobuyasu; Fujimoto, Michiyo; Kamada, Akira

CORPORATE SOURCE: Fac. Pharm. Sci., Mukogawa Women's Univ., Nishinomiya, Japan

SOURCE: Bitamin (1975), 49(9-10), 395-401

CODEN: BTMNA7; ISSN: 0006-386X

DOCUMENT TYPE: Journal

LANGUAGE: Japanese

GI For diagram(s), see printed CA Issue.

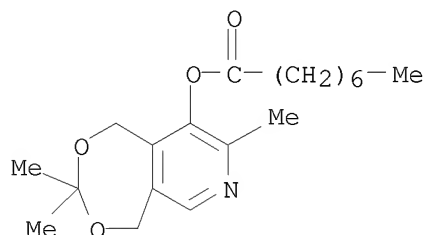
AB Pyridoxine 4-monooctanoate (I) [57547-09-8] was more soluble in organic solvents and water than pyridoxine 5-monooctanoate (II) [18426-21-6]. In buffer solns. of a constant pH between 2 and 3 hydrolysis of monooctanoates obeyed an apparent first-order kinetics. The substance passing through the rat intestine was pyridoxine [65-23-6] alone.

IT 57547-10-1P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 57547-10-1 CAPLUS

CN Octanoic acid, 1,5-dihydro-3,3,8-trimethyl[1,3]dioxepino[5,6-c]pyridin-9-yl ester (CA INDEX NAME)



L5 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1973:511555 CAPLUS

DOCUMENT NUMBER: 79:111555

ORIGINAL REFERENCE NO.: 79:18067a,18070a

TITLE: Chemistry and biology of vitamin B6. 31. Synthesis and physicochemical and biological properties of 6-halogen-substituted vitamin B6 analogs

AUTHOR(S): Korytnyk, W.; Srivastava, S. C.

CORPORATE SOURCE: Dep. Exp. Ther., Roswell Park Mem. Inst., Buffalo, NY, USA

SOURCE: Journal of Medicinal Chemistry (1973), 16(6), 638-42
CODEN: JMCMAR; ISSN: 0022-2623

DOCUMENT TYPE: Journal

LANGUAGE: English

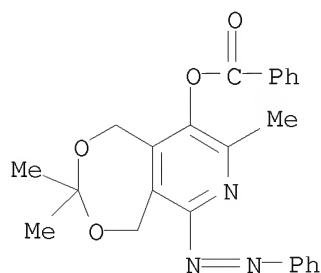
AB The presence of a 6-halogen atom in vitamin B6 analogs radically changed their phys.-chemical properties, especially pKa values, resulting in a loss of zwitterionic character and assumption of a hydrophobic character. All 6-fluoro analogs inhibited growth in vitro of mouse mammary adenocarcinoma and sarcoma 180 cells, the most potent compound being 6-fluoropyridoxal oxime (I) [42242-38-6], but were ineffective in the presence of 10⁻⁵ M pyridoxal [66-72-8]. I and 6-chloropyridoxol [15741-67-0] were potent convulsants in mice, causing 100% mortality at 50 and 100 mg/kg, resp. I was prepared from 6-aminopyridoxol [42242-40-0] by a modified Schiemann reaction yielding 6-fluoropyridoxol [42242-41-1], which was selectively oxidized with MnO₂ to 6-fluoropyridoxal [42242-42-2] and treated with NH₂OH.HCl. 6-Chloropyridoxol, the intermediate in preparation of chlorinated derivs., was prepared by chlorination of α, α -isopropylidenepyridoxol [948-00-5] with Me₃COCl and acid hydrolysis. 6-Fluoropyridoxamine phosphate [42242-44-4] was a potent inhibitor in vitro of pyridoxine phosphate oxidase [9055-72-5], the enzyme catalyzing formation of pyridoxal phosphate.

IT 50441-56-0P 50441-57-1P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

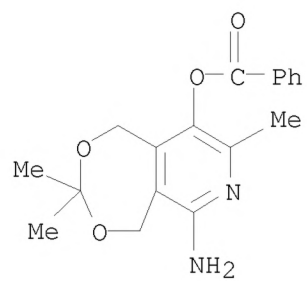
RN 50441-56-0 CAPLUS

CN [1,3]Dioxepino[5,6-c]pyridin-9-ol, 1,5-dihydro-3,3,8-trimethyl-6-(phenylazo)-, benzoate (ester) (9CI) (CA INDEX NAME)



RN 50441-57-1 CAPLUS

CN [1,3]Dioxepino[5,6-c]pyridin-9-ol, 6-amino-1,5-dihydro-3,3,8-trimethyl-, benzoate (ester) (9CI) (CA INDEX NAME)



L5 ANSWER 11 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1969:96571 CAPLUS

DOCUMENT NUMBER: 70:96571

ORIGINAL REFERENCE NO.: 70:18033a,18036a

TITLE: Pyridoxine chemistry. XX. Selective esterifications and acyl rearrangements in vitamin B6

AUTHOR(S): Paul, Burton; Korytnyk, Wsewolod

CORPORATE SOURCE: Roswell Park Mem. Inst., Buffalo, NY, USA

SOURCE: Tetrahedron (1969), 25(5), 1071-87

CODEN: TETRAB; ISSN: 0040-4020

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 70:96571

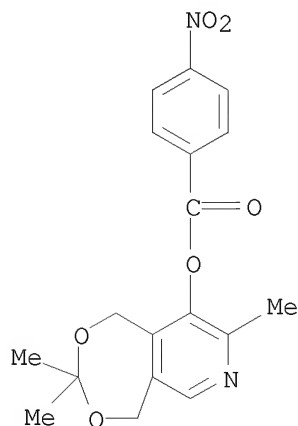
AB Acyl migration and selective esterification were investigated in pyridoxal and pyridoxamine. Esterification of pyridoxal under various conditions gave esters with the hemiacetal structure. In pyridoxal, acyl migration could not be detected, possibly because of inability to form the ortho acid intermediate, hence permitting selective esterification of the phenolic hydroxyl. In pyridoxamine, O → N acyl migration takes place very readily from both the 3-O and α5-O positions, but the reverse migration could not be observed. 3-O,α4-N- and α4-N,α5-O-diester of pyridoxamine were prepared. Thus it is now possible to obtain selectively esterified derivs. of pyridoxal and pyridoxamine by taking advantage of either the absence or the presence of acyl migration. 5-Thiol esters of pyridoxol were obtained, but no acyl migration in the direction 5-S → 4-O could be detected. Factors that determine acyl migration are discussed.

IT 14210-78-7P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 14210-78-7 CAPLUS

CN [1,3]Dioxepino[5,6-c]pyridin-9-ol, 1,5-dihydro-3,3,8-trimethyl-,
4-nitrobenzoate (ester) (9CI) (CA INDEX NAME)



L5 ANSWER 12 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1968:402828 CAPLUS

DOCUMENT NUMBER: 69:2828

ORIGINAL REFERENCE NO.: 69:543a

TITLE: Pyridoxine chemistry. XVII. Adamantoyl esters of pyridoxol


AUTHOR(S): Korytnyk, W.; Fricke, G.

CORPORATE SOURCE: Roswell Park Mem. Inst., Buffalo, NY, USA

SOURCE: Journal of Medicinal Chemistry (1968), 11(1), 180-1
CODEN: JMCMAR; ISSN: 0022-2623

DOCUMENT TYPE: Journal

LANGUAGE: English

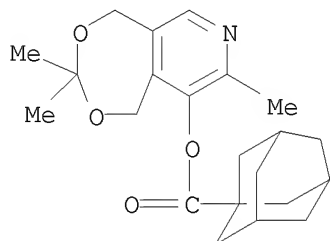
AB Pyridoxal adamantoates having potential usefulness in probing for hydrophobic regions within the receptor sites at which pyridoxol analogs bind, are prepared in order to investigate the chemical and biol. usefulness of the adamantoyl group in vitamin B6 chemistry and pharmacology. The reaction of α 4,3-O-isopropylidenepyridoxol (I) with adamantoyl chloride in pyridine gives α 4,3-O-isopropylidene- α 5-O-adamantoylpyridoxol (II), which when refluxed in HCl-MeOH yields α 5-O-adamantoylpyridoxol-HCl (III).  Adamantoylation of α 4, α 5-O-isopropylidenepyridoxol in pyridine with adamantoyl chloride gives α 4, α 5-O-isopropylidene- α 3-O-adamantoylpyridoxal (IV), which rearranges in methanolic HCl to α 4-O-adamantoylpyridoxol-HCl (V). Preliminary evaluation indicates that III and V are comparatively weak growth inhibitors.

IT 18615-90-2P 18615-91-3P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 18615-90-2 CAPLUS

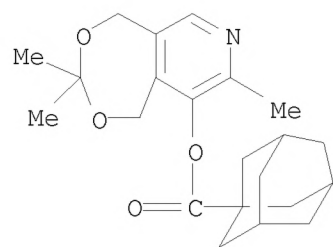
CN 1-Adamantanecarboxylic acid, 3,3,8-trimethyl[1,3]dioxepino[5,6-c]pyridin-9-yl ester, hydrochloride (8CI) (CA INDEX NAME)



● HCl

RN 18615-91-3 CAPLUS

CN 1-Adamantanecarboxylic acid, 3,3,8-trimethyl[1,3]dioxepino[5,6-c]pyridin-9-yl ester (8CI) (CA INDEX NAME)



L5 ANSWER 13 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

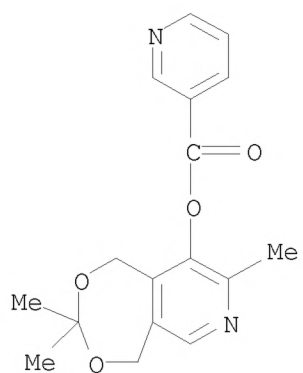
ACCESSION NUMBER: 1968:69294 CAPLUS
DOCUMENT NUMBER: 68:69294
ORIGINAL REFERENCE NO.: 68:13411a,13414a
TITLE: Syntheses of nicotinic acid derivatives of amino acids, nucleosides, and vitamin B6 groups
AUTHOR(S): Uno, Hitoshi; Funabiki, Hiroko; Irie, Akira; Yoshimura, Yoshio
CORPORATE SOURCE: Dainippon Pharm. Co., Osaka, Japan
SOURCE: Yakugaku Zasshi (1967), 87(11), 1293-7
CODEN: YKKZAJ; ISSN: 0031-6903
DOCUMENT TYPE: Journal
LANGUAGE: Japanese

AB Amino acids, nucleosides, and vitamin B6 were treated with nicotinoyl chloride and the corresponding N-nicotinoyl derivs. were prepared Thus, 1 mole amino acid ester is dissolved in pyridine, stirred for 3 hrs. with 1 mole nicotinoyl chloride.HCl (Ia) to give the following N-nicotinoyl amino acids [structure, m.p., [α]D (c and solvent), and % yield given; Nic = nicotinoyl group]: DL-iso-PrCH(NHNic)CO₂H (DL-I), 214-16°, -, 61; L-I, 222-4°, 15.7° (1.00, 50% EtOH), 33; L-iso-PrCH₂CH(NHNic)CO₂H, 185-7°, -6.2° (1.00, 50% EtOH), 20; NicNH(CH₂)₂CO₂H, 157-9°, -, 12; L-PhCH₂CH(NHNic)CO₂H, 178-80°, -34.9° (1.00, 50% EtOH), 40; DL-MeS(CH₂)₂CH(NHNic)CO₂H (DL-II), 216-18°, -, 56; L-II, 198-200°, -21.5° (1.00, 50% EtOH), 39; L-NicNH(CH₂)₃CH(NHNic)CO₂H, 225-7°, -7.5° (1.00, 50% EtOH), 17; L-NicNH(CH₂)₄CH(NHNic)CO₂H, 195-7°, -27.6° (1.05, H₂O), 46; L-HO₂CCH₂CH(NHNic)CO₂H, 185-7°, 15.04° [1.13, H₂O], 36; L-HO₂C(CH₂)₂CH(Nic)CO₂Et, 163-5°, -22.5° (1.00, 50% EtOH), 2. Also prepared are the following nicotinoyl esters of nucleosides (name of the compound, m.p., and % yield given): 5'-O-nicotinoyladenine, 135-40° (picrate m. 200-5°), 32; N⁶-2',3',5'-O-tetranicotinoyladenine, 105-10°, 78; 2',3',5'-tri-O-nicotinoylguanosine, 160-80°, 43; 2',3',5'-tri-O-nicotinoylinosine, 178-81°, 78; 2',3',5'-tri-O-nicotinoylxanthosine, 175-80°, 40; trinicotinoyluridine, 177-8°, 48. Derivs. of vitamin B6 were also prepared Thus, 8.24 g. pyridoxine-HCl and 23.3 g. Ia are dissolved in 60 ml. CHCl₃, 140 ml. pyridine is dropped in under icecooling, the whole stirred at room temperature for 3 hrs. to give 7.6 g. 3, α 4, α 5-tri-O-nicotinoylpyridoxine, m. 115-16.5°. Similarly prepared are: 3, α 5-O- α 4-N-trinicotinoylpyridoxamine (m. 174°), 3, α 4-O-isopropylidene- α 5-O-nicotinoylpyridoxine (m. 98-101°), α 4, α 5-O-isopropylidene-3-O-nicotinoylpyridoxine (m. 107-8.5°), α 5-O-nicotinoylpyridoxine (m. 174-5°), α 4, α 5-di-O-nicotinoylpyridoxine (m. 112-13°), 6-methyl-7-nicotinoyloxy-1,3-dihydrofuro[3,4-c]pyridine (m. 163-5°), and 6-methyl-1,7-dinicotinoyloxy-1,3-dihydrofuro[3,4-c]pyridine (m. 118-19°).

IT 15922-83-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 15922-83-5 CAPLUS

CN Nicotinic acid, 1,5-dihydro-3,3,8-trimethyl[1,3]dioxepino[5,6-c]pyridin-9-yl ester (8CI) (CA INDEX NAME)



L5 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

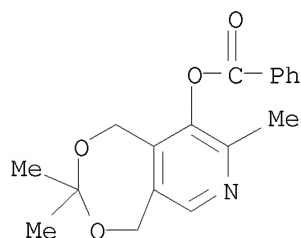
ACCESSION NUMBER: 1968:28937 CAPLUS
DOCUMENT NUMBER: 68:28937
ORIGINAL REFERENCE NO.: 68:5575a,5578a
TITLE: Acyl migration and selective esterification in pyridoxol
AUTHOR(S): Korytnyk, Wsewolod; Paul, Burton
CORPORATE SOURCE: Roswell Park Mem. Inst., Buffalo, NY, USA
SOURCE: Journal of Organic Chemistry (1967), 32(12), 3791-6
CODEN: JOCEAH; ISSN: 0022-3263
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 68:28937

AB Acyl groups on the phenolic OH of pyridoxol migrated to the alc. OH in the 4-position. This rearrangement occurs with aromatic (benzoyl, p-nitrobenzoyl) and aliphatic (Ac, palmitoyl) esters. The mechanism of this rearrangement was studied. A rearrangement of this type takes place during partial esterification of pyridoxol with acid chlorides and explains the formation of aliphatic 3,4-diester in high yields. 22 references.

IT 14210-76-5P 14210-77-6P 14210-78-7P
14213-49-1P 14213-50-4P 14320-31-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

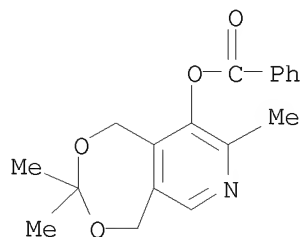
RN 14210-76-5 CAPLUS

CN [1,3]Dioxepino[5,6-c]pyridin-9-ol, 1,5-dihydro-3,3,8-trimethyl-, benzoate (ester) (8CI, 9CI) (CA INDEX NAME)



RN 14210-77-6 CAPLUS

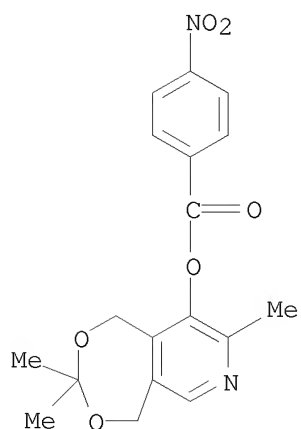
CN [1,3]Dioxepino[5,6-c]pyridin-9-ol, 1,5-dihydro-3,3,8-trimethyl-, benzoate (ester), hydrochloride (8CI) (CA INDEX NAME)



● HCl

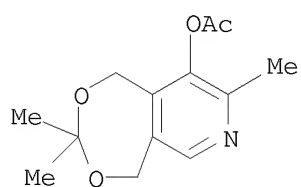
RN 14210-78-7 CAPLUS

CN [1,3]Dioxepino[5,6-c]pyridin-9-ol, 1,5-dihydro-3,3,8-trimethyl-, 4-nitrobenzoate (ester) (9CI) (CA INDEX NAME)



RN 14213-49-1 CAPLUS

CN [1,3]Dioxepino[5,6-c]pyridin-9-ol, 1,5-dihydro-3,3,8-trimethyl-, acetate (ester) (8CI, 9CI) (CA INDEX NAME)



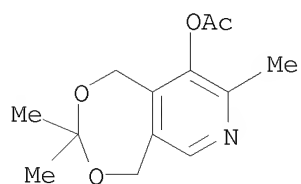
RN 14213-50-4 CAPLUS

CN [1,3]Dioxepino[5,6-c]pyridin-9-ol, 1,5-dihydro-3,3,8-trimethyl-, acetate (ester), monopicrate (8CI) (CA INDEX NAME)

CM 1

CRN 14213-49-1

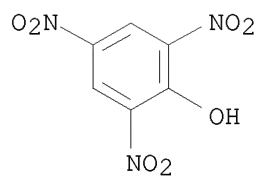
CMF C13 H17 N O4



CM 2

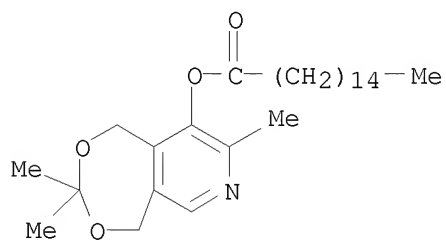
CRN 88-89-1

CMF C6 H3 N3 O7



RN 14320-31-1 CAPLUS

CN Palmitic acid, 1,5-dihydro-3,3,8-trimethyl-[1,3]dioxepino[5,6-c]pyridin-9-yl ester (8CI) (CA INDEX NAME)



L5 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1967:482112 CAPLUS
 DOCUMENT NUMBER: 67:82112
 ORIGINAL REFERENCE NO.: 67:15479a,15482a
 TITLE: Pyridoxinyl nicotinate
 PATENT ASSIGNEE(S): Dainippon Pharmaceutical Co., Ltd.
 SOURCE: Neth. Appl., 18 pp.
 CODEN: NAXXAN
 DOCUMENT TYPE: Patent
 LANGUAGE: Dutch
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
NL 6608293		19661216	NL 1966-8293	19660615
DE 1670526			DE	
FR 5875			FR	
GB 1149086			GB	
JP 43014707		19680000	JP	
JP 44032412		19690000	JP	
US 3557131		19710119	US	19660606
PRIORITY APPLN. INFO.:			JP	19650615
			JP	19651217

OTHER SOURCE(S): MARPAT 67:82112

AB The title compds., characterized by delayed activity of their components and hence having less side effects than nicotinic acid, are prepared The compds. also have hypocholesterolemic, anti-atherosclerotic, and hypoglycemic activity. Thus, a suspension of 2 g. pyridoxine-HCl and 5.3 g. nicotinoyl chloride-HCl in 50 ml. pyridine is agitated for 3 hrs., after which the mixture is filtered, the filtrate concentrated in vacuo, the residue dissolved in CHCl₃, the CHCl₃ solution washed, dried, and concentrated

The

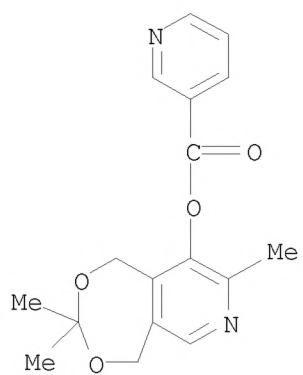
residue is dissolved in EtOH, the solution saturated with dry HCl, diluted with Et₂O, and the precipitate filtered, dissolved, and repptd. to give 1 g. 3,4,5-tri-O-nicotinoylpyridoxine, m. 173-5°. Similarly prepared are 3,5-di-O-nicotinoylpyridoxal, m. 118-19°; 3,5-di-O-nicotinoyl-4-N-nicotinoylpyridoxamine, m. 174°; 4,5-O-isopropylidene-3-O-nicotinoylpyridoxine, m. 107-8.5° (aqueous EtOH); 3,4-O-isopropylidene-5-O-nicotinoylpyridoxine, m. 98-101° (aqueous EtOH); 5-O-nicotinoylpyridoxine, m. 174° (EtOH).

IT 15922-83-5P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)

RN 15922-83-5 CAPLUS

CN Nicotinic acid, 1,5-dihydro-3,3,8-trimethyl[1,3]dioxepino[5,6-c]pyridin-9-yl ester (8CI) (CA INDEX NAME)



L5 ANSWER 16 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1965:424058 CAPLUS
 DOCUMENT NUMBER: 63:24058
 ORIGINAL REFERENCE NO.: 63:4263b-f
 TITLE: Pyridine derivatives
 INVENTOR(S): Kimel, Walter; Leimgruber, Willy
 PATENT ASSIGNEE(S): F. Hoffmann-La Roche & Co., A.-G.
 SOURCE: 7 pp.
 DOCUMENT TYPE: Patent
 LANGUAGE: Unavailable
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
FR 1384099		19650104	FR 1963-954619	19631122
BE 640507			BE	
GB 1013893			GB	
GB 1013894			GB	
NL 301100			NL	
US 3250778		19660510	US 1962-241019	19621129
PRIORITY APPLN. INFO.:			US	19621129

GI For diagram(s), see printed CA Issue.

AB The known I, where R = alkyl, are prepared by acid hydrolysis from II in which R1 = H or acyl, R2 = H, alkyl, alkenyl, or aryl, R3 = H, alkyl, alkenyl, or aryl, or R2 and R3 = polymethylene. I and II form acid addition salts with inorg. or organic acids. II are obtained by condensation of 4,7-dihydro-1,3-dioxepins (III) with oxazoles (IV) where R4 is alkoxy or cyano at 80-250°. The intermediates V give II where R1 = H, or in the presence of alkylating agents, R1 = alkoxy. The reaction of III with IV is catalyzed by acids and autocatalyzed by II. The intermediate II need not be isolated. II, V, and some III are new. Thus, a mixture of 300 g. cis-2-butene-1,4-diol, 31. acetone, 200 g. Na2SO4, and 13 ml. concentrated H2SO4 kept 20 hrs. gives III (R2 = R3 = Me), b755 144.5-47°, n24.5D 1.4465. III (R2 = R3 = H) (2.4 g.), 2.1 g. IV (R = Me, R4 = CN) and CCl3CO2H in a sealed tube at 150° for 20 hrs. gives II (R = Me, R1 = R2 = R3 = H) (VI), m. 175-6°; hydrochloride m. 208-8.5°. VI with Ac2O then ethanolic HCl gives hydrochloride of II (R = Me, R1 = Ac, R2 = R3 = H) (VII), m. 194-5°; free base m. 86.5-7.5°. VII refluxed with 12N methanolic HCl 16 hrs. gives I (R = Me) hydrochloride, m. 207-8° (decomposition). VI (50 mg.) with 5 ml. AcOH, 1 ml. H2O, and 0.1 ml. 72% HClO4 refluxed 3 hrs., evaporated, and crystallized from

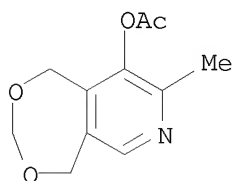
ethanolic HCl gives I (R = Me) hydrochloride, m. 208-9° (decomposition). Also prepared were II (R = Me, R1 = R2 = H, R3 = iso-Pr), m. 164-4.5° [(HCl salt m. 190-1° (decomposition); acetate-HCl (VIIa) m. 173-3.5°], II (R = Me, R1 = R2 = H, R3 = Ph) (VIIb), m. 160-60.5°, II [R = Me, R1 = H, (R2R3 =) (CH2)5] (VIII), m. 167-9° (in vacuo). IV (R = Me, R4 = MeO) b. 140-2°. VIII (100mg.) and 10 ml. N/HCl heated on a steam bath 15 min. gave pyridoxol-HCl, m. 202-3° (decomposition), also prepared from VIIa, VIIb, and VII, and from 4-methyloxoazole-5-carbonitrile (IX) and 4,7-dihydro-2-isopropyl (or phenyl)-1,3-dioxepin. IX (3 ml.) and 25.2 g. 4,7-dihydro-2-propenyl-1,3-dioxepin (X) heated 17 hrs. at 180° in a sealed tube to give II (R = Me, R1 = R3 = H, R2 = propenyl), which treated with alc. HCl gave pyridoxol-HCl, similarly prepared from IX and the 2,2-dimethyl analog of X.

II 1622-66-8P, [1,3]Dioxepino[5,6-c]pyridin-9-ol, 1,5-dihydro-8-methyl-, acetate 1966-88-7P, [1,3]Dioxepino[5,6-c]pyridin-9-ol, 1,5-dihydro-3-isopropyl-8-methyl-, acetate, hydrochloride 2319-67-7P, [1,3]Dioxepino[5,6-c]pyridin-9-ol, 1,5-dihydro-8-methyl-, acetate, hydrochloride

RL: PREP (Preparation)
(preparation of)

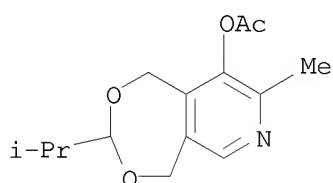
RN 1622-66-8 CAPLUS

CN [1,3]Dioxepino[5,6-c]pyridin-9-ol, 1,5-dihydro-8-methyl-, acetate (ester)
(9CI) (CA INDEX NAME)



RN 1966-88-7 CAPLUS

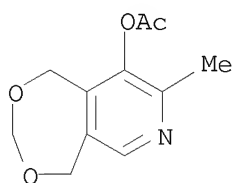
CN [1,3]Dioxepino[5,6-c]pyridin-9-ol, 1,5-dihydro-3-isopropyl-8-methyl-,
acetate (ester), hydrochloride (8CI) (CA INDEX NAME)



● HCl

RN 2319-67-7 CAPLUS

CN [1,3]Dioxepino[5,6-c]pyridin-9-ol, 1,5-dihydro-8-methyl-, acetate (ester),
hydrochloride (9CI) (CA INDEX NAME)



● HCl

ACCESSION NUMBER: 1963:33247 CAPLUS
 DOCUMENT NUMBER: 58:33247
 ORIGINAL REFERENCE NO.: 58:5622h,5623a-c
 TITLE: Seven-membered cyclic ketal of pyridoxol
 AUTHOR(S): Korytnyk, W.
 CORPORATE SOURCE: Roswell Park Mem. Inst., Buffalo, NY
 SOURCE: Journal of Organic Chemistry (1962), 27, 3724-6
 CODEN: JOCEAH; ISSN: 0022-3263
 DOCUMENT TYPE: Journal
 LANGUAGE: Unavailable
 OTHER SOURCE(S): CASREACT 58:33247

GI For diagram(s), see printed CA Issue.

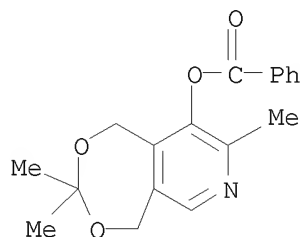
AB Pyridoxol-HCl (I) (12 g.) suspended in 300 ml. Me₂CO treated in the cold with dry HCl 25 min. (13 g. HCl taken up), the mixture shaken 1 hr., kept overnight at -10 to -20°, and filtered, the mixture (10 g.) suspended in K₂CO₃ solution and kept several hrs. at 5°, and the product crystallized gave 5.4 g. α₄,α₅-O-isopropylidenepyridoxol (II), m. 184-5° (aqueous MeOH). I (12 g.) suspended in 250 ml. Me₂CO treated in 5 min. with 11 g. dry HCl gave 74% crude II. II (0.245 g.) in N HCl heated 40 min. at 85-90° gave 0.225 g. I, m. 210-12° (decomposition). II (2.415 g.) in 50 ml. C₅H₅N treated 2 hrs. at 0° with 2.5 ml. BzCl gave 3.23 g. 3-O-benzoyl-α₄,α₅-isopropylidenepyridoxol, m. 107-9° (aqueous alc.). II (1.05 g.) in 50 ml. C₅H₅N treated 16 hrs. at room temperature with 2.23 g. p-MeC₆H₄SO₂Cl gave 1.45 g. 3-O-p-toluenesulfonyl-α₄,α₅-O-isopropylidenepyridoxol (III), m. 145-6°. 3-O-Methanesulfonyl-α₄,α₅-O-isopropylidenepyridoxol, similarly obtained, m. 72-3°. III (0.9 g.) heated 0.5 hr. with 100 ml. 10% HCO₂H containing 20 ml. alc. gave 0.63 g. 3-O-p-toluenesulfonylpyridoxol, m. 186-7° (CHCl₃-alc.). II was stable to alkali. In contrast to the 6-membered ketal II could be readily monotosylated and monomesylated as shown above. Comparison of the ultraviolet spectra of II, pyridoxol, and α₄-3-O-isopropylidenepyridoxol confirmed the structure of II.

IT 14210-76-5P, [1,3]Dioxepino[5,6-c]pyridin-9-ol,
 1,5-dihydro-3,3,8-trimethyl-, benzoate

RL: PREP (Preparation)
 (preparation of)

RN 14210-76-5 CAPLUS

CN [1,3]Dioxepino[5,6-c]pyridin-9-ol, 1,5-dihydro-3,3,8-trimethyl-, benzoate
 (ester) (8CI, 9CI) (CA INDEX NAME)



=> FIL STNGUIDE
COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
96.69	275.26

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
-13.60	-13.60

CA SUBSCRIBER PRICE

FILE 'STNGUIDE' ENTERED AT 13:03:42 ON 04 APR 2008
USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT
COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Mar 28, 2008 (20080328/UP).

=> some pyridinelog y
SOME IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> log y
COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
1.32	276.58

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
0.00	-13.60

CA SUBSCRIBER PRICE

STN INTERNATIONAL LOGOFF AT 13:16:45 ON 04 APR 2008